HEALTH RESEARCH IN AFRICA

High Quality Research with Impact on Clinical Care

ISSN: 3006-4090 EISSN: 3006-4104

Original Article

Roles and Challenges of Community Health Workers in Epidemiological Surveillance: A Qualitative Study in Cameroon

Rôles et Défis des Agents de Santé Communautaire dans la Surveillance Épidémiologique : Une Étude Qualitative au Cameroun

Chanceline Bilounga Ndongo[1,2], Linda Esso[1,3], Daniele Sandra Yopa[1,3], Armelle Viviane Ngomba[1,2], Nestor Atangana Onana[1], Boris Kompguep[1], Loïc Tchoupo[1], Gbétogo Maxime Kiki[4], André Arsène Bita Fouda[2,5], Jules Leon Owona Manga[2], Georges Nguefack-Tsaque[3], Georges Alain Etoundi[1,3]

Affiliations

1. Department for the Control of Disease, Epidemics and Pandemics Ministry of Public Health, Cameroon
2. Faculty of Medicine and Pharmaceutical Sciences of Univerty of Douala, Cameroon
3. Faculty of Medicine and Biomedical Sciences of University of Yaounde I, Cameroon
4. Center for Interdisciplinary Research in Rehabilitation and Social Integration, Québec, QC, Canada
5. World Health Organization for Africa

Corresponding author
Dr Chanceline Bilounga Ndongo
MD, MPH, MOH
Public Health Physician
Occupational Health Physician
Global Health Security Agenda Specialist
USAID Cameroon
Email: cbilounga@usaid.gov
Phone: +237 699164024

Keywords: Community health workers, epidemiological surveillance, Cameroon, qualitative research

Mots-clés : Agents de santé communautaire, surveillance épidémiologique, Cameroun, recherche qualitative

ABSTRACT

Introduction. Community Health Workers (CHWs) are key community and health system liasons. Their closeness and acceptance by their community give them an important role to play concerning early detection in community-based surveillance (CBS). To sort out the role, strengths, and challenges of CHWs in their epidemiologic surveillance activities since the implementation of CBS in Cameroon, an evaluation has been conducted in 2023. **Methodology**. This exploratory qualitative study was based on semi-structured interviews with CHWs who are involved in surveillance activities in each of the ten regions of Cameroon. Twenty CHWs were recruited through a purpose sampling. **Results**. The CHWs reported engaged in many roles such as health promotion, detection and notification of suspected cases or signals which can lead to a public health event, response to outbreaks, community awareness and community engagement. Their integration in the community, the love for their community were highlighted as important factors of their activities. Nevertheless, they faced some challenges such as absence of legal mandate, distrust of the community, exposition to public health threats and lack of resources. They proposed to focus on improvement of their status and financial incentives, recruitment of more CHWs for representative purpose, and providing trainings, personal protective equipment and documentation to enhance their skills to successfully address these challenges. **Conclusion**. Findings in this study, support that CHWs contribute not only to the primary health care process but also to public health surveillance. However, they encountered some difficulties in undertaking confidently their activities. Legal mandate, sustainable resources and capacity building are needed to strengthen CBS.

RÉSUMÉ

Introduction. Les agents de santé communautaire (ASC) jouent un rôle clé en tant qu'intermédiaires entre la communauté et le système de santé. Leur proximité et l'acceptation dont ils bénéficient au sein de leur communauté leur confèrent un rôle important dans la détection précoce dans le cadre de la surveillance communautaire (SC). Afin de mieux comprendre le rôle, les forces et les défis des ASC dans leurs activités de surveillance épidémiologique depuis la mise en place de la SC au Cameroun, une évaluation a été réalisée en 2023. **Méthodologie**. Cette étude qualitative exploratoire s'est basée sur des entretiens semi-structurés avec des ASC impliqués dans les activités de surveillance dans chacune des dix régions du Cameroun. Vingt ASC ont été recrutés par un échantillonnage raisonné. **Résultats.** Les ASC ont rapporté plusieurs rôles dans lesquels ils sont impliqués, tels que la promotion de la santé, la détection et la notification de cas suspects ou de signaux pouvant mener à un événement de santé publique, la réponse aux épidémies, la sensibilisation de la communauté et l'engagement communautaire. Leur intégration au sein de la communauté et l'amour qu'ils portent à celle-ci ont été soulignés comme des facteurs importants dans l'accomplissement de leurs activités. Cependant, ils ont également rencontré certains défis tels que l'absence de mandat légal, la méfiance de la communauté, l'exposition aux menaces pour la santé publique et le manque de ressources. Les ASC ont proposé plusieurs solutions, notamment l'amélioration de leur statut et de leurs incitations financières, le recrutement de davantage d'ASC pour une meilleure représentation, ainsi que la fourniture de formations, de matériel de protection individuelle et de documentation afin de renforcer leurs compétences et relever ces défis avec succès. **Conclusion**. Les résultats de cette étude montrent que les ASC contribuent non seulement à la prise en charge de la santé primaire, mais également à la surveillance en santé publique. Toutefois, ils rencontrent des difficultés à réaliser leurs activités de manière confiante. Un mandat légal, des ressources durables et le renforcement des capacités sont nécessaires pour consolider la surveillance communautaire (SC).

Copyright © 2025. The Authors. This is an open access article published by HRA under the CC BY ND 4.0 license

INTRODUCTION

Community Health Workers (CHWs) are essential to the health system, especially in low-resource countries [1]. They are engaged in several roles, particularly in the areas of community awareness, community engagement, health education, and case management. They served as “culture brokers” in their community, working ethnically, linguistically, socioeconomically, and experientially [2]. Because they are trusted and respected, they can serve as effective conduits of information and could be frontline workers with invaluable and cost-effective roles [3–8]. It is increasingly recognized that CHW can contribute to achieving public health goals[1].

Community-based surveillance (CBS) is defined as the systematic detection and reporting of events of public health significance within the community by community members especially CHWs.[9] As key mediators between their community and health system, CHWs are then strategically positioned to early detect and report any potential health threats and events in their respective community [3–7]. The reemergence of outbreaks such as cholera, influenza, and Ebola in low-income countries over the years has highlighted the need for a robust surveillance system to prevent the spread of epidemics and pandemics [9,10]. This could not be achieved by facility-based surveillance alone, especially in Africa, where people come to hospitals when it is already late or when the disease has already spread in the community [11,12]. There is a need then to strengthen disease surveillance at all levels, especially at the community level [9,10].

A recent World Health Organization (WHO) technical meeting made in 2018 recommended that a robust community-based surveillance program have the following characteristics: It should be integrated in a formal surveillance structure and be actionable and timely, and it should have perceived benefits to the community, well-defined reporting mechanisms, a feedback mechanism, and a monitoring and evaluation process [12,13]. To meet the requirements of the International Health Regulations (IHR 2005) and the Integrated Diseases Surveillance and Response WHO guideline, Cameroon has put in place since 2017, a Community-Based Surveillance (CBS), which utilizes both Indicator-Based Surveillance (IBS) and Event-Based Surveillance (EBS), which is crucial for Early Warning and Response (EWAR). The implementation of CBS is supported by CHWs in all Health Districts. Public health events and emergencies are detected and reported using both case definitions and signals. Implementation involves detection, notification, triage, verification, risk assessment, and response to the event. [14]

Evaluation of CBS has not been conducted since its implementation in Cameroon. This study aims to fill this gap by exploring the lived experiences of CHWs involved in disease surveillance activities, highlighting the challenges they face, and identifying potential strategies to enhance their effectiveness. By identifying the factors that hinder or enhance the effectiveness of CHWs, this study could contribute to the ongoing efforts to strengthen community-based surveillance systems, particularly in Cameroon.

MATERIAL AND METHODS

Study design, period and site

A descriptive phenomenological study was performed. The method aims to understand a phenomenon, to explore how it is experienced, and to uncover the meaning given to an experience rather than explaining it through an abstract representation of general mechanisms involved in its course [15]. The Consolidated criteria for Reporting Qualitative research (COREQ) checklist was used to guide the reporting. The study was conducted in all the 10 regions of Cameroon. The study period covered seven months from March to September 2023.

Study participants

All participants wereCHWs with surveillance activities and appointed by the different Regional Delegation of Public Health (RDPH) were involved. Recruitment based on convenience sampling, from June 25, 2023 to July 15, 2023. A total of 20 CHWs were recruited at a rate of 2 per region. For this study, CHWs were identified irrespective of gender, age, education level.

Recruitment and inclusion process

The recruitment of participants was conducted by the research team members (D.S.Y and C.B). The team used a purposeful sampling approach to identify individuals with relevant experiences and insights into the study topic. Participants were primarily approached through direct contact and community networks, such as local health areas, which helped facilitate connections with individuals fitting the study criteria.

Recruitment was carried out through various channels, including email invitations and face-to-face invitations during community meetings. Each potential participant was provided with an information notice with a consent form outlining the study’s purpose, procedures, and expectations. They were not previously known to the researchers, nor were they aware of each other before the study, which helped to reduce bias and maintain a level of impartiality in responses. After confirming their willingness to participate and signing the consent form, participants were formally included in the study, and individual interviews were scheduled at mutually convenient times and locations to ensure comfort and privacy.

Data collection

Semi-structured interviews were conducted in a designated rest room within each RDPH (Regional Delegation of Public Health). The research team developed a sociodemographic questionnaire and an interview guide based on relevant literature related to the research topic. The sociodemographic questionnaire included information were taker prior to the interview such as gender, age, occupation. Each interview comprised open-ended questions related to the roles and responsibilities of CHWs, including motivations, strengths, challenges, and suggestions for improvement. The data collection tools were pretested on personnel of the RDPH prior to the actual data collection to assess the

Copyright © 2025. The Authors. This is an open access article published by HRA under the CC BY ND 4.0 license

clarity and logical flow of the questions. Interviews were conducted by a trained, mixed team from the Department of Diseases Control, Epidemics, and Pandemics (DLMEP), along with public health experts from the various RDPHs (A.N, E.M, K.B, B.A, N.P, K.I, S.Y, T.R, N.B, E.E). Interviews were held in both English and French, as all participants were comfortable with these languages. Follow-up prompts were provided if interviewees had difficulty responding or veered off-topic, with interviewers offering clarifications or steering the conversation back on course. In cases where responses were unclear, a summary of the interviewee's statements was provided to them for validation to ensure accuracy. All interviews were audio-recorded with an android phone, and interviewers also took field notes during each session. Each interview held between 32 and 46 minutes. No names or personal information were recorded to maintain anonymity. Each participant provided signed informed consent after being fully informed of the study's purpose. Participation was entirely voluntary, and participants were assured of their freedom to withdraw from the study at any time.

Data analysis

The sociodemographic data were analyzed using descriptive statistics (frequency, mean, and standard deviation) to characterize the sample. A team of three researchers (S.Y.D, B.C, E.L) analyse the data in collaboration with interviewers. The interviews were transcribed into verbatim. A thematic analysis was done in a stepwise manner, as Braun and Clarke described [16]. Six steps were followed through the process. First, one of the researchers (SYD) read several times all transcripts and identifies meaning units and preliminary themes that might elucidate the study question. The preliminary themes were used to give similar statements and meanings a relevant code. (step 1). Second, two research team members (CB, SYD) developed a coding scheme based on an independent review of three transcripts. Initial codes were created as themes. New codes were created if some parts of the transcripts did not directly fit into the existing ones. Discussions with the research team reached an agreement on a final codebook. This codebook was then used by all the research team to code all transcripts using NVIVO V.11.0 to assist with data management (step 2). The research team then identify patterns and relationship between codes to form broader themes. The codes related to one another were grouped into themes (step 3). Each theme was then examined to ensure their consistence, robustness and accuracy. A precise and evocative name were given to each theme to ensure that it reflect their essence (step 4 and 5). Lastly a narrative synthesis of the finding was done as report. Key quotes that illustrated each theme were extrapolated from the data (step 6).

Ethical considerations

No ethical clearance was obtained for this study. However, administrative authorization was obtained from the Minister of Public Health and the Regional Public Health Delegations. All study participants were informed through the information sheet and consent form before participating in the field surveys. This information provided details about the study's purpose, participation procedures, confidentiality, and ethical considerations. Information about the possibility of withdrawing was also provided. This approach allowed participants to make a free, voluntary, and informed choice regarding their participation in the study. Their consent was formalized by signing a consent form. To ensure data confidentiality, participants were anonymized with codes. The interviews were conducted individually. Les verbatims ont aussi été anonymisés par SYD avant l'analyse par le reste de l'équipe.

Par ailleurs les interviewer n'avaient aucune connaissance préalable des participants et n'a eu aucune interaction avec eux avant de mener les entretiens. Aussi, dans le cadre de la rédaction de cet article, les propos des participants, initialement recueillis en français, ont été librement traduits en anglais.

RESULTS

A total of 20 CHWs were interviewed. The average duration of the interviews was 30 minutes. The most represented age range of the participants was between 40-59 years (n= 12, 60%). The table below presents the selected themes and the various codes extracted for analysis. The sex ratio M/F was 3:1. In total, five main themes emerged from the data analysis: actors' involvement in IDSR, motivations, strengths of community surveillance, challenges and weaknesses of community surveillance, and solutions to improve surveillance.

Table I: Characteristics of participants (n= 20)

Variables		N	%
Age range (years)			
	20-39	12	60
	40-59	5	25
	≥ 60	3	15
Sex			
	Male	15	75
	Female	5	25
Study level			
	No level	2	10
	Primary	3	15
	Secondary	12	60
	Advanced level	3	15

Actor's implications in Integrated Disease Surveillance and Response (IDSR)

- **Community awareness**

Several participants reported that community awareness is part of their core surveillance activities. Many others engage in awareness during an epidemic, while some are more involved in educational talks during home visits.

« I am involved in community awareness activities regarding diseases under surveillance » (P3)

Many visit families to explain the importance of vaccination against diseases. For some, mothers are the main targets of this awareness to encourage them to vaccinate their children and recognize alarming signs of diseases covered by the Expanded Program on Immunization (EPI). Others teach the population the proper behaviours to prevent diseases. The following statement illustrates these points:

Copyright © 2025. The Authors. This is an open access article published by HRA under the CC BY ND 4.0 license

« Since 2016, my work in surveillance has significantly contributed; we warn the population in case of an epidemic, advise them to follow hygiene rules, which helps the population adopt good behaviours that protect them from diseases. » (P11)

- **Detection and notification of signals**

Several participants, when detecting community members with disease symptoms, report to the health centre chief or the nearest health area chief. They detect and notify alerts. Many actors reported declaring specific diseases, as illustrated by the following statements.

« We report vaccine-preventable diseases, such as measles, neonatal tetanus, yellow fever, and COVID » (P8)

« For example, Marburg, we detect alerts and report monthly. And I try to convince them to go to the hospital. » (P9)

- **Referral to Health Facilities**

Several actors stated that they use their site visits to identify individuals with disease symptoms and refer them to the hospital.

« During awareness activities, if I encounter a case of illness, I refer it to the health facility » (P14)

Some participants believe that when cases are simple, they can manage them at the community level and only refer severe cases.

« ...We handle simple cases in the community, but for complicated cases, we refer them directly to any health facility» (P18)

- **Active case search**

Some actors mentioned that they accompany case investigation teams in the community to identify cases. Others believe that active case search is part of their activity and contributes to better case detection.

« Cases are easily detected when we go to the communities rather than sitting in the hospital and waiting for patients to come » (P5)

Motivation to be a CHW

- **Community Well-being**

The well-being of the community is a motivation for participants to engage as community health agents. Some highlight the pride they feel when they see their families and the community in good health and their role in passing on health information.

« What motivates me in my community is that I bring added value to my family, who are all in the neighbourhood. I can pass on information from health facilities. It's for their well-being... It energizes me because I want my entire community to be healthy » (P13)

- **Community Recognition**

Being recognized as a useful person in the community is another significant motivation highlighted by participants. The honours and gratitude received in return for their position and work bring a sense of pride. One participant stated:

« They call us "docta" When there is a problem, they call us, and we are proud of that » (P8).

Strengths of Community Surveillance

- **Proximity to the Community**

According to participants, being part of the community and being known by it is a strength. One participant stated:

« I am also a photographer; I am well known in the community» (P9)

Another added:

« The strength of community surveillance, first, I am popular in my community, given the other activities I did before becoming a community health agent, such as deworming, vaccination» (P14)

This proximity, according to their explanations, allows members to be more cooperative and increases the impact of activities such as awareness. This proximity also means that community health agents often have the opportunity to speak with the population in the local language.

- **Love for the job**

Many participants feel that they are made to be community health agents. According to their statements, they love this job and their community. One participant supported this claim by saying:

« It is a bit innate in me. I like to see and work for the well-being of my community, which is why I do awareness » (P1)

- **Involvement of Chiefs and Leaders**

The interest that both community and health system leaders show in surveillance is seen as a major asset. Some believe that working with neighbourhood or block chiefs advances the work. Others add that strong involvement of health facility chiefs and health area leaders is a strength, as illustrated below:

*« The involvement of chiefs of health area and some chiefs of health centre is what makes it work well »(*P10)

Challenges and weaknesses of community surveillance

- **Distrust and Reluctance of the Community**

Most community members are, according to the community health agents, distrustful. This distrust, they say, hinders effective surveillance activities. Distrust is attributed to ignorance and unfounded rumours within the community. Reluctance often manifests as mothers refusing to vaccinate their children, rejecting awareness messages from agents, or feeling ashamed or unnecessary to visit health facilities. The following statement illustrates these ideas:

« The biggest weakness in my community is that some people hide their illness so well that instead of going to the hospital, they go to marabouts» (P14)

- **Lack of Resources**

Community health agents' work is voluntary according to participants. However, many add that they would be more performant if logistical and financial resources are made available. Many call for allowances, surveillance tools, and transportation means. The participant below stated:

« We need money and means to meet our needs and to implement some activities... We do not have the means to effectively monitor, to move around. For example, our neighbourhoods, our villages are distant from each other. We have personal motorcycles, but we do not have fuel, means, or food to fully perform surveillance. » (P3)

Many of them believe that the lack of resources and non-remuneration is a source of demotivation.

Copyright © 2025. The Authors. This is an open access article published by HRA under the CC BY ND 4.0 license

« Going from house to house for awareness is voluntary, and since it is not paid, it is a bit discouraging» (P6)

- **Insecurity and Access Difficulties**

Several actors reported that roads to some locations are poor. Some community health agents mentioned that insecurity in certain regions of the country is a real barrier to surveillance. Participant 17 stated:

« One difficulty now is insecurity, especially when mobilizing the population, for example during awareness campaigns. When there is no security, they do not come » (P17)

Solutions to improve surveillance

- **Financial Motivation for Actors**

According to the actors, financial motivation is an important solution for improving surveillance. Others believe it would also help them take care of their families and be more productive in this demanding job.

« For better involvement every week, financial means are needed. It's true that it is a volunteer job. Occasionally, CHWs need motivation... In my opinion, if there is a possibility to support CHWs, to take care of them, that is, to provide financial means, a salary, even if it's not much, it motivates. » (P2)

« Well, you also know that the work is strenuous. The state should make it easier for us. We need a little financial support. You see, today I have been out for a meeting since the morning; I also need to feed my family. » (P9)

- **Provision of logistical means**

Several participants called for the provision of work tools, means of transportation, medications, and basic inputs for community care. There is a need for materials to distributed to the population to enhance community awareness.

« First, signalling materials... Facilitate the transport of detected cases... Secondly, for surveillance, provide community health agents with surveillance gadgets to distribute to the population... Also, if we have a well-established work plan, reporting materials, and financial means to avoid hindrances to our work » (P16).

« There are also some inputs needed in the community, so they should be made available » (P18)

- **Recruitment and Contractualization of PCHW**

Several participants believe that the number of volunteers PCHWs should be increased for better surveillance and to improve coverage in various neighbourhoods.

« We need relays. We need to recruit a relay in each neighbourhood. Otherwise, each neighbourhood will not have a community relay» (P2)

Many call for formal employment by the state.

« The status of polyvalent community health agents should be improved» (P11).

DISCUSSION

This study explored the role ofCHWs in epidemiological surveillance in Cameroon.

Roles of CHW

The results of the study show that detection and notification, community awareness, referral to health facilities and active case findings were the most common roles of the CHWs. This was also highlighted by many others. The results could be explained by the significant contribution of CHW to public health functions as a competent workforce for the health system especially in rapid detection for effective response to epidemics [1,7].

Another key area of interventions of CHW is community awareness and community engagement. They are some of the most effective agents for community engagement[2] and used to promote preventive behaviour like immunisation, hygienic measures especially among mothers and children. This reflects the primary prevention strategy which aims to reduce the incidence of disease through education and information [17]. In Sierra Leone, Mckenna et al highlight the role of CHWs in health promotion noting that CHWs do not only provide information about how Ebola is spread during household visits but also provide counselling to community members about vaccinations [18].

An effective referral system from the community to the health care facility is part of the essential role of the CHW. The CHWs can identify any case of suspected epidemic-prone disease and refer them immediately. A qualitative study done by Give et al in Mozambique agrees with that and CHW declared to know their values as key facilitates in improving primary healthcare by referring patients for conditions they cannot treat [19].

Some participants mentioned that they accompanied investigation teams to identify cases in the community. This shows that CHWs do not limit themselves to passive activities, but actively engage in response activities such as contact tracing [17]. A literature synthesis done by Bhaumik and al on the place of CHW in response highlighted this important role even though they found that most often lack of training and resources on this aspect make them to be suboptimal in the service delivered [20].

Strengths of CHW

One of the main strengths identified by the CHW, is their closeness with the community. Because they are respected, well known by their communities, it is easier for them to understand their needs, give them appropriate knowledge and adapt their interventions. Moreover, many CHWs has also declared that they are motivated by their love of their work and their desire to see their communities in good health. This was also enhanced by some studies which reveal that strong relationships with the community enhance effectiveness [2,21,22].

Community recognition is another source of motivation for CHWs. Being seen as a useful and respected member of the community brings personal satisfaction which strengthens their commitment. They felt more motivated when their efforts were acknowledged by the community and this could help them overcome daily challenges [23]. This was also found in the works of Dil and al. [2].

Involvement and support from the community leaders and health system were for some respondents, great elements for the effectiveness of their work. When it is lacking it could affect the performance of the CHWs [17].

Challenges of CHW

CHWs face several challenges that limit their effectiveness in epidemiological surveillance. These challenges range from insecurity and geographical

Copyright © 2025. The Authors. This is an open access article published by HRA under the CC BY ND 4.0 license

inaccessibility to lack of resources and training. One of the main obstacles identified is the mistrust of the members of the community. This mistrust often fuelled by ignorance and rumours, are obstacles of effectiveness of surveillance activities. A systematic review of drivers of success of CBS reveals the local ownership, trust and good communication between CHW and community members are key success elements for a good CBS [24]. This is the reason why there must be a cultural accordance between the CHW and the community to build the trust and improve so forth health incomes [7,25].

Another major challenge is the lack of financial and logistical resources. CHWs reported that the lack of transport, surveillance equipment and funding made their work difficult. Without these resources, it is difficult for them to cover large geographical areas effectively and to carry out surveillance activities continuously and reliably. In addition, the lack of remuneration for their work, which is essentially, can lead to demotivation. A review highlighted that the lack of professional recognition and funding is one of the barriers of CHW [7]. Lack of financial incentives can render CHW surveillance work difficult particularly in situations where CHWs who are often smallholder farmers feel that that they have to choose between surveillance work and their livelihoods [2].

Lastly, difficult access and insecurity in certain regions are also a major obstacle for the CHW. This hindrance their implications to remote and inaccessible areas. A study conducted by Miller and al shows that security threats could be a great challenge to the effectiveness of CHWs' surveillance activities [25].

Solutions to improve surveillance activities

Participants proposed several solutions to improve community-based surveillance, in response to the challenges identified. The most common solutions were: financial motivation, logistical means, recruitment of CHW by the health system.

CHWs suggested that regular allowances or even a modest salary could greatly improve their productivity and commitment. This would allow them not only to support themselves and their families but also to devote themselves more to their surveillance activities. Even material or non-monetary incentives are considered important. In addition to that, some of them proposed a formal contracting of CHWs by the health system, as well as the recruitment of new CHWs to improve the vicinity coverage. Some studies agree to the fact that CHW usually expressed a strong desire for formal recognition [2]. Some studies reveal that incentives could be crucial to sustain CHW motivation [23].

Many CHWs have expressed the desire to enhance their competencies trough adequate training and briefing and with good documentation and logistical support. This would help them to be update and skilled in their work. Some studies show that providing regular training opportunities could help to maintain high level of motivation. Some author emphasized on the necessity to provide for them working tools for effective surveillance activities [21–23].

Recruitment and contractualization of CHWs were stated as important solutions to address the challenges noticed. On the other hand, some participants thought the recruitment of new CHWs is important for geographic coverage and to maintain productivity. This could also help them to have a realistic number of tasks with proper organisation [26]. Hence, contractualization of CHW would be a source of motivation and could be seen as health system recognition for their efforts. Some studies identified that having a projection career or being identified as health system employees provided a sense of security and recognition [23,26].

CONCLUSION

The CHWs are important actors in the prevention and control of epidemics. The present study aimed to show the role played by community health workers in epidemiological surveillance and to identify their strengths and weaknesses for the proper implementation of their activities. The study shows that CHWs are mostly involve in activities related to health promotion, detection of notification, community awareness and reference of patients to health facilities. Their proximity to the community, their commitment and love for their work as well as the involvement and support of the community are valuable strengths for community surveillance. However, limited financial motivation, resources, training and logistics are obstacles to their good performance. To address these issues, it is therefore important to strengthen their capacities and provide them adequate resources for their security and to boost their motivation.

AUTHORS' CONTRIBUTIONS

The research project was envisioned and overseen by the DSY and CB. The initial draft of the paper and compilation of findings were handled by DSY, EL and CB. The teams responsible for developing the research methodology included DSY, CB, EL and GMK. All the entire group of authors participated in the revise manuscript. Before finalizing the document, all contributors had the opportunity to read it, offer their input, and approve it.

ACKNOWLEDGMENTS

The authors team wish to express their profound appreciation for the support provided by the different participants.

CONFLICT OF INTEREST

The research team affirmed that this study was conducted without any monetary or business-related affiliations that might be perceived as creating a bias or compromising the integrity of the work.

REFERENCES

1. Alhassan JAK, Wills O. Public health surveillance through community health workers: a scoping review of evidence from 25 low-income and middle-income countries. BMJ Open 2024;14:e079776. https://doi.org/10.1136/bmjopen-2023-079776.
2. Dil Y, Strachan D, Cairncross S, Korkor AS, Hill Z. Motivations and challenges of community-based surveillance volunteers in the northern region of Ghana. J

Copyright © 2025. The Authors. This is an open access article published by HRA under the CC BY ND 4.0 license

Community Health 2012;37:1192–8. https://doi.org/10.1007/s10900-012-9569-5.
3. Huang W, Long H, Li J, Tao S, Zheng P, Tang S, et al. Delivery of public health services by community health workers (CHWs) in primary health care settings in China: a systematic review (1996-2016). Glob Health Res Policy 2018;3:18. https://doi.org/10.1186/s41256-018-0072-0.
4. McCollum R, Gomez W, Theobald S, Taegtmeyer M. How equitable are community health worker programmes and which programme features influence equity of community health worker services? A systematic review. BMC Public Health 2016;16:419. https://doi.org/10.1186/s12889-016-3043-8.
5. Hirschhorn LR, Govender I, Zulu JM. Community health workers: essential in ensuring primary health care for equitable universal health coverage, but more knowledge and action is needed. BMC Prim Care 2023;24:219. https://doi.org/10.1186/s12875-023-02175-6.
6. Busza J, Dauya E, Bandason T, Simms V, Chikwari CD, Makamba M, et al. The role of community health workers in improving HIV treatment outcomes in children: lessons learned from the ZENITH trial in Zimbabwe. Health Policy Plan 2018;33:328–34. https://doi.org/10.1093/heapol/czx187.
7. Stupplebeen DA, Barnett-Sherrill AT, Sentell TL. Community Health Workers in Hawai‘i: A Scoping Review and Framework Analysis of Existing Evidence. Hawaii J Med Public Health 2019;78:6–14.
8. Love MB, Gardner K, Legion V. Community Health Workers: Who they are and What they do. Health Educ Behav 1997;24:510–22. https://doi.org/10.1177/109019819702400409.
9. Technical Guidelines for Integrated Disease Surveillance and Response in the African Region: Third edition. WHO Reg Off Afr 2024. https://www.afro.who.int/publications/technical-guidelines-integrated-disease-surveillance-and-response-african-region-third (accessed September 5, 2024).
10. community-based-surveillance_idsr_training-manual.pdf n.d.
11. Guerra J, Acharya P, Barnadas C. Community-based surveillance: A scoping review. PLoS ONE 2019;14:e0215278. https://doi.org/10.1371/journal.pone.0215278.
12. A definition for community-based surveillance and a way forward: results of the WHO global technical meeting, France, 26 to 28 June 2018. Eurosurveillance 2019;24:1800681. https://doi.org/10.2807/1560-7917.ES.2019.24.2.1800681.
13. Clara A, Ndiaye SM, Joseph B, Nzogu MA, Coulibaly D, Alroy KA, et al. Community-Based Surveillance in Côte d’Ivoire. Health Secur 2020;18:S-23-S-33. https://doi.org/10.1089/hs.2019.0062.
14. MINSANTE. Community-based Surveillance guidelines, Cameroon 2023.
15. Ribau C, Lasry J-C, Bouchard L, Moutel G, Hervé C, Marc-Vergnes J-P. La phénoménologie : une approche scientifique des expériences vécues. Rech Soins Infirm 2005;81:21–7. https://doi.org/10.3917/rsi.081.0021.
16. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006;3:77–101. https://doi.org/10.1191/1478088706qp063oa.
17. Mhlongo EM, Lutge E, Adepeju L. The roles, responsibilities and perceptions of community health workers and ward-based primary health care outreach teams: a scoping review. Glob Health Action 2020;13:1806526. https://doi.org/10.1080/16549716.2020.1806526.
18. Mc Kenna P, Babughirana G, Amponsah M, Egoeh SG, Banura E, Kanwagi R, et al. Mobile training and support (MOTS) service—using technology to increase Ebola preparedness of remotely-located community health workers (CHWs) in Sierra Leone. mHealth 2019;5:35. https://doi.org/10.21037/mhealth.2019.09.03.
19. Give C, Ndima S, Steege R, Ormel H, McCollum R, Theobald S, et al. Strengthening referral systems in community health programs: a qualitative study in two rural districts of Maputo Province, Mozambique. BMC Health Serv Res 2019;19:263. https://doi.org/10.1186/s12913-019-4076-3.
20. Bhaumik S, Moola S, Tyagi J, Nambiar D, Kakoti M. Community health workers for pandemic response: a rapid evidence synthesis. BMJ Glob Health 2020;5:e002769. https://doi.org/10.1136/bmjgh-2020-002769.
21. Tripathy JP, Goel S, Kumar AMV. Measuring and understanding motivation among community health workers in rural health facilities in India-a mixed method study. BMC Health Serv Res 2016;16:366. https://doi.org/10.1186/s12913-016-1614-0.
22. Kok MC, Broerse JEW, Theobald S, Ormel H, Dieleman M, Taegtmeyer M. Performance of community health workers: situating their intermediary position within complex adaptive health systems. Hum Resour Health 2017;15:59. https://doi.org/10.1186/s12960-017-0234-z.
23. Ormel H, Kok M, Kane S, Ahmed R, Chikaphupha K, Rashid SF, et al. Salaried and voluntary community health workers: exploring how incentives and expectation gaps influence motivation. Hum Resour Health 2019;17:59. https://doi.org/10.1186/s12960-019-0387-z.
24. McGowan CR, Takahashi E, Romig L, Bertram K, Kadir A, Cummings R, et al. Community-based surveillance of infectious diseases: a systematic review of drivers of success. BMJ Glob Health 2022;7:e009934. https://doi.org/10.1136/bmjgh-2022-009934.
25. Miller NP, Ardestani FB, Dini HS, Shafique F, Zunong N. Community health workers in humanitarian settings: Scoping review. J Glob Health n.d.;10:020602. https://doi.org/10.7189/jogh.10.020602.
26. Jaskiewicz W, Tulenko K. Increasing community health worker productivity and effectiveness: a review of the influence of the work environment. Hum Resour Health 2012;10:38. https://doi.org/10.1186/1478-4491-10-38.

Article history
Submitted: 27 December 2024
Revisions requested: 8 January 2025
Accepted: 25 January 2025
Published: 27 January 2025

Copyright © 2025. The Authors. This is an open access article published by HRA under the CC BY ND 4.0 license